

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000410620012-5

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CIA-RDP86-00513R000410620012-5"

Dokl Akad Nauk SSSR  
1955, v. 106, no. 2, p. 383-386.

Activity of urease in the rhizosphere of farm crops. P.  
A. Vlasov, K. M. Dobrovorzhaya, and S. A. Gordienko  
I. G. Suvorovskogo State Univ., Kiev. Doklady Vsesoyuzn.  
Akad. Sel'skokhoz. Nauk SSSR, v. 1, Leningrad 21, No. 6, 28-31  
(1955). - The urease activity was determined in soil of the rhizo-  
sphere and between the rows (outside of rhizosphere). It  
was tested after the visible roots had been removed; 5 g  
of the soil was placed into a 50-ml. flask, 25 ml. of phos-  
phate buffer (pH 7.17-7.20) containg 2% urea and some tannic  
acid, covered w/ the flask stoppered, shaken, and placed  
in a thermostat at 30° for 40 hrs. The urease activity was  
measured by the quantity of NH<sub>3</sub> formed. The highest  
urease activity was found in the rhizosphere of buckwheat,  
cereals, corn, and especially lupine. Addition of nitrogenous  
fertilizers increase the activity. The activity of urease is  
associated with the vital attributes of the plants, their growth  
and development, and conditions of nutrition. I. S. [signature]

Effects of organic inorganic fertilizers on microflora test  
in the soil P. A. Vlasavik K. M. Dobrovolska  
S. V. Strel'tsova K. S. Mikhalev  
Mineral and organic fertilizers  
and their combining influence  
on the activity of soil microflora  
and the formation of humus  
and the salts. and urea formation was also  
studied. Author: Valerii F. Smirnov

VLASTUK, P.A., akademik; DORBOTVORSKAYA, M., kandidat sel'skokhozynystvennykh nauk; GORDIYENKO, S.A.

Intensity of ferment action in the rhizosphere of various agricultural plants. Dokl. Akad. Nauk UkrSSR, 22 no.3:14-19 '57.

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii rasteniy. (MLRA 10:6)

(Rhizosphere microbiology) (Enzymes)

GELLER, I.A.; DOBROTVORSKAYA, K.M.

Phosphatase activity in the soils of sugar beet areas. Trudy  
Inst. mikrobiol. no.11:215-221 '61 (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy  
sverkly.

\*

(A) ZOBRAVOKSYA, L. V.

8

Mineral regeneration in sediments. D. P. Serdyuchenko and L. V. Dolgotvorkaya. *Doklady Akad. Nauk S.S.R.* 69, 427-430 (1950).—In the heavy fractions of sandy-clayish sediments of Devonian, Carbon and Permian rocks of S. Timan and W. Urals, one often observes regenerated crystals of garnet, staurolite, zoisite, clinozoisite, apatite, siderite, sphene, anatase, and brookite. Usually the new-grown crystals are fixed on fragments of the same, or also of foreign minerals, from which a portion of the chem. ingredients have been incorporated during regeneration. An extensive description is given of the morphological details of the new-grown crystals of the minerals mentioned above. It is remarkable how the phys.-chem. conditions of the regeneration growths differ from those of the primary crystn. of the same minerals, e.g. in the crystallization of metamorphic rocks in which they are "normally" found. Particularly interesting and conclusive are in this respect the transparent and colorless crystals of siderite and brookite regenerated in sediments. The latter mineral is grown on grains of leucoxene, in typical authigenic forms, and with very characteristic optical properties. Similar new-formed transparent crystals of anatase show regeneration from leucoxene. W. Kitel

DOBROVOL'SKAYA, N.M.; PONOMAREV, V.A.

A pair of opposing operators. Usp. mat. nauk 20 no.6:81-86  
N-D '65. (MIRA 18:12)

1. Submitted April 1, 1965.

N.V.  
DOBROTVORSKAYA (V) and LAVROVSKIY,

"Experiments on Active Immunization Against Foot-and-Mouth Disease"

(based on data of the Kazakh expedition).

Sov. Veterinariya, No. 1, 1939 (Bibliography from article on Foot and Mouth Disease by  
A. L. Smorodkov, State Publishing House for Agricultural Literature, Moscow/Leningrad  
1947)

U-1625, 11 Jan 1952, p 479

DOBROTVORSKAYA, N. V.

PA 4LT80

USSR/Medicine - Leishmaniasis  
Medicine - Chemotherapy

Jan/Feb 1948

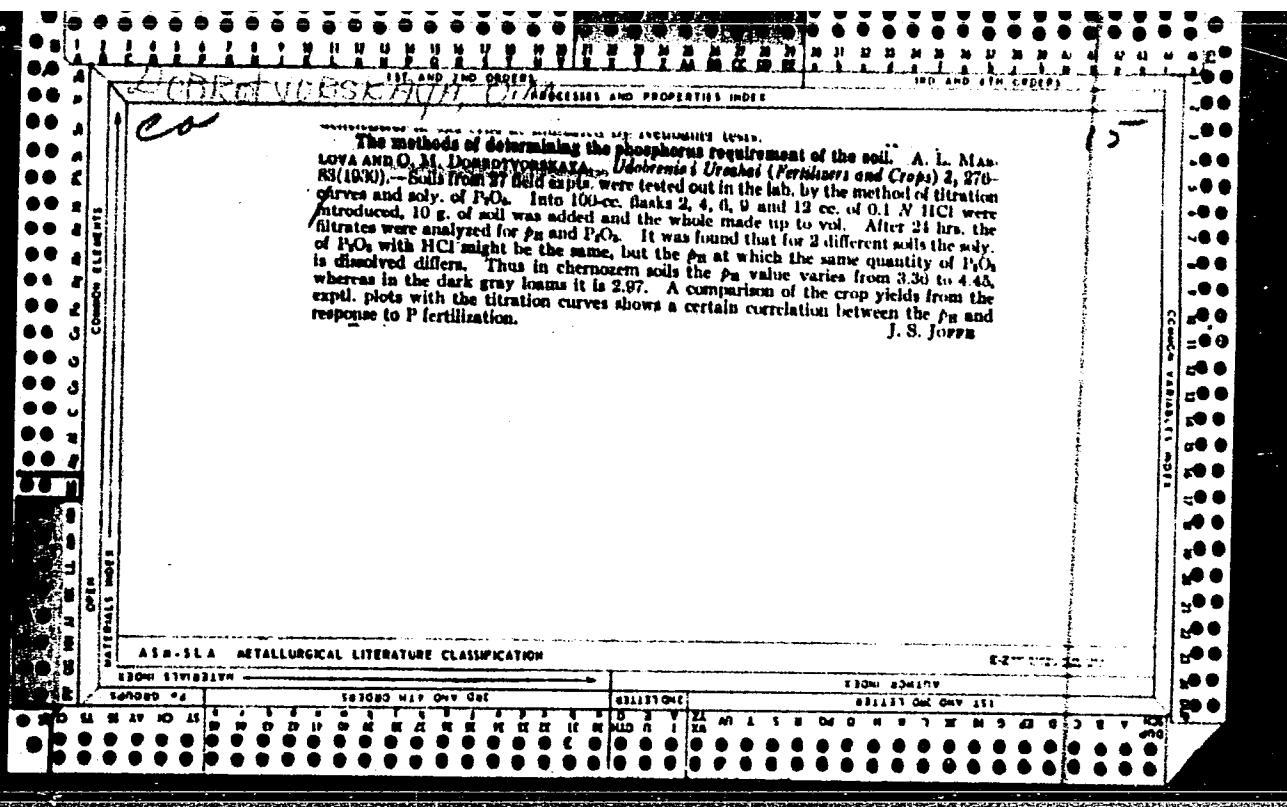
"Clinical Picture and Course of Leishmaniasis Relapses After Injection with Atebrin," N. V. Dobrotvorskaya, Candidate Med Sci, Chair of Skin and Venereal Diseases, Ashkhabad Med Inst, 4 pp

"West Venereal Dermat" No 1

Studies gave the following results: 1) Relapses were observed in 31.9% of the patients who were treated with 5% solutions of atebrin. 2) Ignored 62.5% of the cases as they showed no evidence of any particular ill effects from treatment. 3) Appearance of and duration of relapses was dependent on the method of inoculation, duration of the process, localization, period during which relapses appeared, the age of the patients, and on care given the patients. Prof. P. V. Kozhevnikov is Deputy of Chair of Skin and Venereal Diseases.

4LT80  
USER/Medicine - Leishmaniasis (Contd) Jan/Feb 1948

4LT80



TONKAL, Yu. A.; DOBROTVORSKAYA, O.M. [Dobrotvors'ka, O.M.]; LOPATYUK, F.I.

Effectiveness of menilite shales as a new fertilizer for grain  
crops and sugar beets. Pratsi Inst. agrobiol. AN URSR 2 [pt. 463-  
70 '53. (MIRA 11:?)

(Grain)  
(Sugar beets)  
(Shale)

VLASYUK, P.A.; LISOVAL, P.Z.; DOBROTVORS'KA, O.M.

Properties of organic and mineral composts and their effect on  
the yield of sugar beets. Mikrobiol. zhur. 17 no.4:15-21 '55  
(MLRA 10:5)

1. Z Institutu fiziologii roslin ta agrokhimii AN URSR  
(COMPOST) (SUGAR BEETS)

DOBROTVORSKAYA, O.M. [Dobrotvors'ka, O.M.]; HELIKOVA, M.K. [Bielikova, M.K.];  
GORDIYENKO, S.O. [Hordienko, S.O.]

Rhizosphere micro-organisms of some farm crops. Nauk. zap. Kyiv.  
un. 15 no.11:121-125 '56. (MIRA 11:5)  
(Rhizosphere microbiology)  
(Field crops)

MUSIYENKO, V.A., student 5 kursu; DOBROTVORS'KA, O.M., dotsent, naukoviy kerivnik.

Effect of drainage on the biological activity of peat soils. Stud. nauk.pratsi no.20:105-111 '56. (MLRA 9:12)  
(Peat soils) (Drainage)

BUZHENKO, Ye.K., student 4 kursu; DORROTYORS'KA, O.M., dotsent, naukoviy  
kerivnik.

Effect of potassium fertilizers on soil microflora. Stud.nauki  
pratsi no.20:113-119 '56. (MLRA 9:12)  
(Soil micro-organisms) (Potassium salts)

APOSTOLOVA, L.I., student 5 kursu; DOBROTVORS'KA, O.M., dotsent, naukoviy  
kerivnik.

Characteristics of the microflora in the rhizosphere of potatoes.  
Stud.naukpratsi no.20:121-129 '56. (MLRA 9:12)  
(Potatoes) (Rhizosphere microbiology)

GELLER, I.A. [Heller, I.A.]; KHARITON, Ye.G. [Khariton, Ye.H.];  
DOBROTVORSKAYA, O.M. [Dobrotvors'ka, O.M.]

Adsorption of bacteria by the roots of plants. Mikrobiol.  
zhur. 25 no.3:38-42 '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharov  
svetly.

DOBROTVORSKIY, A.N.(Bezopasnoye Stavropol'skogo kraya); DEMINTSEV, A.D.;  
RAYTMAN, T.I.(Perovo Moskovskoy oblasti).

Discussing M.I. Bludov's article "What physics problems on technical topics should be like". Fiz. v shkole 17 no.2:48-49 Mr-Ap '57.

(MLRA 10:3)

1. 1-ya shkola rabochey molodezhi (for Raytman)  
(Physics--Problems, excercises, etc)

DOBROTVORSKY, B. N.

DOBROTVORSKY, B. N.

Protivovozdushnaya obrona v grazhdanskom stroitel'stve. Moskva,  
Gosstroizdat, 1941. 249 p., illus., tables, diagrs.

Bibliography: p. 243-244.

Title tr.: Anti-aircraft defense in civil engineering.

TH1097.D6

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

DOBROTVORSKIY, B. N.

42230. DOBROTVORSKIY, B. N. Malaya mekhanizatsiya pogruzochno-razggruzochnykh rabot na stroitel'stve. Byulleten' stroit. Tekhnike, 1948, No. 22, c. 1-8.

So: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

ARDANSKIY, A.S.; DOBROTVORSKIY, B.N., kandidat tekhnicheskikh nauk, redaktor;  
KRASIL'SHCHIK, S.I. redaktor; TOKER, A.M., tekhnicheskiy redaktor

[Booklet on safety technique for workers on a milling machine]  
Pamiatka po tekhnike bezopasnosti dlia rabotaiushchikh na frezernom  
stanke. 2. izd. Moskva, Gos. izd-vo lit-ry po stroitel'stvu i  
arkhitektury, 1954. 46 p.  
(MLRA 7:8)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva. Otdel  
tekhniki bezopasnosti i promyshlennoy sanitarii.  
(Milling machines--Safety measures)

DOBROTVORSKIY, B.N., kandidat tekhnicheskikh nauk; FORAFONOV, N.K.,  
kandidat tekhnicheskikh nauk; MUNITS, A.P., redaktor izdatel'stva;  
BOROVNEV, N.K., tekhnicheskiy redaktor

[Tentative instructions for erecting apartment houses and public  
buildings with large concrete blocks] Vremennye ukazaniia po voz-  
vedeniiu zhilykh i grazhdanskikh zdaniii iz krupnykh betonnykh blokov.  
Moskva, Gos. izd-vo lit-ry po stroit. i arkitekture, 1956. 67 p.

(MLRA 10:1)

1. Akademiya stroitel'stva i arkitektury SSSR. Nauchno-issledovatel'-  
skiy institut organizatsii i mekhanizatsii stroitel'stva. 2. Nauchno-  
issledovatel'skiy institut organizatsii i mekhanizatsii stroitel'stva  
Akademii stroitel'stva i arkitektury SSSR (for Dobrotvorskiy, Forafonov)  
(Precast concrete construction)

~~DOBROTVORSKIY~~ ...~~... Bol'shoy~~, candidat tekhnicheskikh nauk.

Methods for increasing the quality of finishing work in mass  
industrial construction. Biul. stroi.tekh. 13 no.12:6-10 D '56.  
(MLRA 10:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po  
organizatsii i mekhanizatsii stroitel'stva.  
(Building)

DOBROTVORSKIY B.N., kandidat tekhnicheskikh nauk.

Measures for the development and improvement of the construction of  
large concrete block buildings. Biul strel. tekhn. 14 no. 4:164 Ab '57.

(MIRA 10:6)

1. Nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii  
stroitel'stva Akademii stroitel'stva i arkhitektury SSSR.  
(Concrete slabs)

DOBROTVORSKIY, B.N., kand. tekhn. nauk.

Advanced methods of organizing housing and public building construction in the U.S.S.R. Biul. stroi. tekhn. 14 no.10:10-16 O '57.  
(MIRA 10:12)

1. Nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii  
stroitel'stva Akademii stroitel'stva i arkhitekturny SSSR.  
(Construction industry)

DOBROVORSKIY, B.N., kand.tekhn.nauk; BARON, F.Ya., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; ASTVATSATUR'YAN, R.N., starshiy nauchnyy sotrudnik; KHOKHRYAKOV, Yu.A., mladshiy nauchnyy sotrudnik; PETROVA, V.V., red.izd-va; BOROVNEV, N.K., tekhn.red.

[Instruction (temporary) for organizing construction of large residential blocks consisting of multistoried large-block and large-panel buildings] Ukaazaniia (vremennye) po organizatsii stroitel'stva zhilykh massivov mnogoetazhnykh krupnoblochnykh i krupnopanel'nykh zdanii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 90 p. (MIRA 13:1)

(Continued on next card)

DOBROTVORSKIY, B.N.---(continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva.
2. Rukovoditel' sektora organizatsii zhilishchnogo stroitel'stva i tekhnologii proizvodstva rabot Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva (for Dobrotvorskiy).
3. Sektor organizatsii zhilishchnogo stroitel'stva i tekhnologii proizvodstva rabot Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva (for all except Petrova, Borovnev).

(Apartment houses)  
(Precast concrete construction)

DOBROTVORSKII, B.N., kand.tekhn.nauk, red.; MUNITS, A.P., red.izd-va;  
SOLNTSEVA, L.M., tekhn.red.

[Temporary instruction on the use of large concrete blocks in  
the construction of houses and public buildings] Instruktsiia  
(vremennaia) po vozvedeniiu zhilykh i grazhdanskikh zdanii iz  
krupnykh betonnykh blokov. Moskva, Gos.izd-vo lit-ry po stroit.,  
arkhit. i stroit.materialam, 1959. 134 p. (MIRA 12:4)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut orga-  
nizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva.  
(Concrete blocks) (Concrete construction)

18.7400, 21.7200

77638  
SOV/80-33-2-13/52

AUTHORS: Bogoyavlenskiy, A. F., Dobrotvorskiy, G. N.

TITLE: Experiments With the Introduction of Radioactive Isotope  $W^{185}$  Into the Anodic  $Al_2O_3$  Film During Its Formation

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 340-344 (USSR)

ABSTRACT: This is Communication VIII of a series of studies on the anodic oxidation of aluminum. Discs made of D16AT duraluminum were oxidized in 5%  $Na_2CO_3$  solution containing a predetermined amount of  $Na_2W^{185}O_4$ , and the  $W^{185}O_4^-$  anion was introduced in this manner into the  $Al_2O_3$  film. To prevent erroneous results in the determination of the specific surface radioactivity,

Card 1/4

Experiments With the Introduction of  
Radioactive Isotope W<sup>185</sup> Into  
the Anodic Al<sub>2</sub>O<sub>3</sub> Film During Its  
Formation

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SOV/80-33-2-13/52

only one side of the discs was exposed to oxidation, the other being covered with AK-20 lacquer which did not absorb the radioactive isotope. The anodizing was done in electrolytes with specific radioactivity I<sub>1</sub> from 1  $\mu$ C/ml to 25.80  $\mu$ C/ml; the voltage was maintained at 156 v, the current density varied from 0.25 to 1 amp/dm<sup>2</sup>. An iron electrode was used. The radioactivity was measured with a B-2 and end-window counter. Analysis of the data obtained gave the following empirical equations expressing the radioactivity as function of the parameters of the anodizing process. For electrolytes with specific radioactivity of 1  $\mu$ C/ml and 10  $\mu$ C/ml, the specific activity I of the oxide film is expressed by Eqs. (1) and (2), respectively:

$$I = 0.8 \cdot 10^{-4} \lg t - 0.29 \cdot 10^{-4} \quad (1)$$

Card 2/4

Experiments With the Introduction of  
Radioactive Isotope W<sup>185</sup> Into the  
Anodic Al<sub>2</sub>O<sub>3</sub> Film During Its Formation

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$$I = 8.1 \cdot 10^{-4} \lg \tau - 3.2 \cdot 10^{-4}, \quad (2)$$

where  $\tau$  is oxidation time (in min). The activity, I, can be expressed as a function of I<sub>1</sub> by Eq. (3):

$$I = I_1 (8.0 \lg \tau - 3.0) \cdot 10^{-5}. \quad (3)$$

The relationship between I and the current density  
(in amp/dm<sup>2</sup>) can be expressed by Eqs. (4) and (5):

$$\lg I = -1.85 - \frac{0.67}{D_A}. \quad (4)$$

$$I = 0.01413 \cdot e^{-1.85/D_A}. \quad (5)$$

Card 3/4

Experiments With the Introduction of  
Radioactive Isotope W<sup>185</sup> Into the  
Anodic Al<sub>2</sub>O<sub>3</sub> Film During Its Formation

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SOV/80-33-2-13/52

The above equations may be useful for the preparation of radioactive applicators based on the isotope W<sup>185</sup> and the anodic film Al<sub>2</sub>O<sub>3</sub>. There are 4 figures; and 6 references, 1 U.S., 5 Soviet. The U.S. reference is: R. Mason, J. Electroch. Soc., 102, 12, 671 (1955).

SUBMITTED: December 27, 1958

Card 4/4

S/080/62/035/007/009/013  
D214/D307

AUTHORS: Bogoyavlenskiy, A.F. and Dobrotvorskii, G.N.

TITLE: The introduction of radioactive isotopes Cl<sup>14</sup> and Co<sup>60</sup> into the anodic oxide film on aluminum

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 7, 1962,  
1557-1560

TEXT: The aim of this work was to study the introduction of Cl<sup>14</sup> and Co<sup>60</sup> into the anodic films of Al<sub>2</sub>O<sub>3</sub>. The anodic oxidation was carried out in Na<sub>2</sub>CO<sub>3</sub> solutions containing from 0.0005 to 0.01 mol/l of NH<sub>4</sub><sup>+</sup> [Co(NH<sub>3</sub>)<sub>2</sub>(NO<sub>2</sub>)<sub>4</sub>] (I), and the radioactive elements were introduced as Cl<sup>14</sup>O<sub>3</sub><sup>2-</sup> or [Co<sup>60</sup>(NH<sub>3</sub>)<sub>2</sub>(NO<sub>2</sub>)<sub>4</sub>]<sup>1-</sup>. The films of Al<sub>2</sub>O<sub>3</sub> had their β -activity determined. The amount of the complex ion found in the Al<sub>2</sub>O<sub>3</sub> film increased with the concentration of I in the electrolyte up to 0.0025 mol/l. while the CO<sub>3</sub><sup>2-</sup> content

Card 1/2

The introduction of radioactive ...

S/080/62/035/007/009/013  
D214/D507

decreased sharply. At higher concentrations of I in the electrolyte the content of both the anions in the  $\text{Al}_2\text{O}_3$  film did not change with the concentration of I. The strength of the bond between the anions and  $\text{Al}_2\text{O}_3$  was found to be greater in the case of the  $\text{CO}_3^{2-}$ . By washing the  $\text{Al}_2\text{O}_3$  film with water 35-40% of the activity due to  $\text{CO}^{60}$  was washed out while the activity due to  $\text{Cl}^{40}\text{O}_3^{2-}$  remained almost constant. This was explained by assuming that  $\text{CO}_3^{2-}$  is present only in the structure of the film while 35-40% of the complex anion is adsorbed on the surface. There are 3 figures.

SUBMITTED: January 27, 1961

Card 2/2

ACCESSION NR: AT4043076

S/0000/64/000/000/0233/0241

AUTHOR: Bogoyavlenskiy, A. F. (Doctor of chemical sciences, Professor);

Dobrotvorovskiy, G. N.

TITLE: A study of penetration of electrolyte ions into an anodic aluminum oxide film during its formation by carbonate anodizing

SOURCE: Mezhvuzovskaya konferentsiya po anodnoy zashchite metallov ot korrozii. 1st, Kazan, 1961. Anodnaya zashchita metallov (Anodic protection of metals); doklady\* konferentsii. Moscow, Izd-vo Mashinostroyeniye, 1964, 233-241

TOPIC TAGS: clad alloy D16, anodized duralumin, sodium carbonate electrolyte, labeled electrolyte solution, anodization period, anodic oxide film, electrolyte temperature, electrolyte concentration, current density, electrolyte ion penetration, aluminum oxide film, carbonate anodizing, aluminum corrosion

ABSTRACT: Disks of clad alloy D16 (diameter=16mm) were degreased (acetone) and anodized in 5% sodium carbonate solution labeled with C<sup>14</sup>, W<sup>185</sup> or Co<sup>60</sup> to study the content of carbonate ions in the anodic film in relation to anodization period (3-60 min. at 30C, 0.5 a/dm<sup>2</sup>, specific activity 1.82·10<sup>6</sup> counts/min·ml), current density

Card

:1/2

ACCESSION NR: AT4043076

(0.25-4.5 a/dm<sup>2</sup>, 20 min.; 27C,  $2.16 \cdot 10^6$  counts/min·ml), electrolyte temperature (10-50C, 0.5 a/dm<sup>2</sup>, 20 min,  $1.82 \cdot 10^6$  counts/min·ml) and concentration (0.0075-1.0 M, 30C, 0.3 a/dm<sup>2</sup>, 20 min). Other experiments involved concentrations of 1.2-3.0 M Na<sub>2</sub>WO<sub>4</sub> + 0.05 M Na<sub>2</sub>CO<sub>3</sub> in solutions labeled with C<sup>14</sup> or W<sup>185</sup> (30C, 0.5 a/dm<sup>2</sup>, 20 min.) and introduction of CO<sup>60</sup> - labeled 1.2-3.0 M NH<sub>4</sub> [CO(NH<sub>3</sub>)<sub>2</sub>(NO<sub>2</sub>)<sub>4</sub>], or inactive salt into a solution containing C<sup>14</sup>. The results indicate that the content of carbonate ions increases nearly 100% as the anodizing period is extended from 3 to 60 min., rises from 0.8 to 5% as the current density increases from 0.25 to 1.5 a/dm<sup>2</sup>, decreases sharply as the electrolyte temperature rises (12-40C), and reaches a peak at concentrations of 0.05 M. The content of tungstate ions increases and that of carbonate decreases as the Na<sub>2</sub>WO<sub>4</sub> concentration rises. Similar results were obtained for Erdman salt-containing solutions. Orig. art. has: 8 graphs.

ASSOCIATION: none.

SUBMITTED: 13Mar64

ENCL: 00

SUB CODE: MM

NO REF SOV: 007

OTHER: 001

Cord 2/2

Dobrotovskiy, Nikolay Stepanovich

BAYDA, Leonid Il'ich; DOROTOVSKIY, Nikolay Stepanovich; ORSHANSKIY,  
Dmitriy L'vovich; PCHELINSKAYA, Sof'ya Nikodimovna; RAZUMOVSKIY,  
Nikolay Nikolayevich; SVIRSKIY, Yevgeniy Antonovich, [deceased];  
FREMKE, Andrey Vladimirovich, professor, doktor tekhnicheskikh  
nauk; KAZARNOVSKIY, D.M., redaktor; ZABRODINA, A.A., tekhniches-  
kiy redaktor.

[Electric measurements; general course] Elektricheskie izmerenija;  
obshchii kurs. Izd. 2-e, perer. Moskva, Gos. energeticheskoe izd-vo,  
1954. 496 p.  
(MLRA 7:12)

(Electric measurements)

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Methods of reducing the errors of calibrated shunts. (Cont.)<sup>417</sup>

order to study the causes of the errors the characteristics of the manganin used were tested and the results are plotted. The errors can be reduced by balancing the negative temperature coefficient of the manganin against the positive temperature coefficient of the copper. It is shown that the errors are reduced if the shunts are made smaller and run hotter. A new range of small-sized shunts has been produced for which the change in error as a function of current does not exceed  $\pm 0.2\%$ . On an average, the manganin in the new shunts runs  $20^{\circ}\text{C}$  hotter than in the old and the terminals run  $8$  to  $15^{\circ}\text{C}$  hotter. The new shunts require about 40% less material than the old.

5 figures, 2 literature references (Russian)

DOBROTVORSKIY, N. S., Cand Tech Sci -- (diss) "Research into shunts at large currents." Leningrad, 1960. 18 pp; with flow-sheet; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Electrical Engineering Inst im V. I. Ul'yanov (Lenin)); 200 copies; price not given; (KL, 17-60, 153)

BAYDA, Leonid Il'ich; DOBROTVORSKIY, Nikolay Stepanovich; DUSHIN, Yevgeniy Mikhaylovich; MOKIYENKO, Dobroslava Nikolayevna; PREOBRAZHENSKIY Aleksey Alekseyevich; PCHELINSKAYA, Sof'ya Nikodimovna; STAROSEL'TSEVA, Yelena Aleksandrovna; FREMK, Andrey Vladimirovich, doktor tekhn. nauk, prof.; ORSHANSKIY, D.L.; PREOBRAZHENSKIY, A.A., red.; SOBOLEVA, Ye.M., tekhn.red.

[Electrical measurements; a general course] Elektricheskie izmerenii; obshchii kurs. Izd.3., perer. i dop. [By] L.I. Baida i dr. Moskva, Gosenergoizdat, 1963. 428 p.  
(MIRA 17:3)

DOBROTVORSKIY, S.

DOBROTVORSKIY, S.

23566. PRICHINY NEKOTORYKh NEISPRAVNOSTEY DIZELEY YaAZ- 204.  
AVTOMOBIL', 1949, No. 7, c. 8-9.

SO: LETOPIS' NO. 31, 1949

DOBROTVORSKIY, S.I., inzh.

Efficient method of replacing piston rings of the D-54 engine.  
Mekh. i elek. sots. sel'khoz. 15 no.1:21-25 '58. (MIRA 11:3)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya.  
(Piston rings)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000410620012-5

~~DOBROTVORSKIY, V.V.~~

Selecting location for impounding water in a river. Trudy GISHI  
no.25:215-224 '56.  
(Reservoirs) (MIRA 11:5)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000410620012-5"

17(12)

SOV/177-58-7-22/28

AUTHOR: Dobrotvortsev, V.A., Lieutenant-Colonel of the Medical Corps

TITLE: Treatment of Certain Skin Diseases by Intravenous Injection of Novocaine and Vitamin B<sub>1</sub>

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, pp 83-86 (USSR)

ABSTRACT: The author reports on treating skin diseases with novocaine combined with vitamin B<sub>1</sub> which takes a good effect on the entire organism (M.A. Rozentul, G.G. Livshin). Investigations have proven that vitamin B<sub>1</sub> in combination with novocaine makes it possible to apply the latter repeatedly, although some authors, including N.V. Bel'skiy and T.S. Bruevich, in certain cases think an allergy to novocaine possible. In the investigations discussed in this article the following method of treatment was employed: the first day, 3-4 or 5 milliliter of a

Card 1/3

SOV/177-58-7-22/28

Treatment of Certain Skin Diseases by Intravenous Injection  
of Novocaine and Vitamin B<sub>1</sub>

0.25% solution of novocaine combined with 1 ml  
of a 5% solution of vitamin B<sub>1</sub> were injected in-  
travenously. This daily dose was increased to  
10 milliliters on the 3-4 day. The patients ob-  
tained on an average 10 intravenous injections  
during their stay in the hospital. The author sums  
up the results of his investigations in the follow-  
ing conclusions: 1) The method of intravenous in-  
jection of novocaine together with vitamin B<sub>1</sub> in  
treating eczema, psoriasis, and some other derma-  
toses is more efficacious than a treatment with  
novocaine only, or other methods. 2) Vitamin B<sub>1</sub>  
in combination with novocaine reduces the secondary  
effects of the latter and moves them partially or

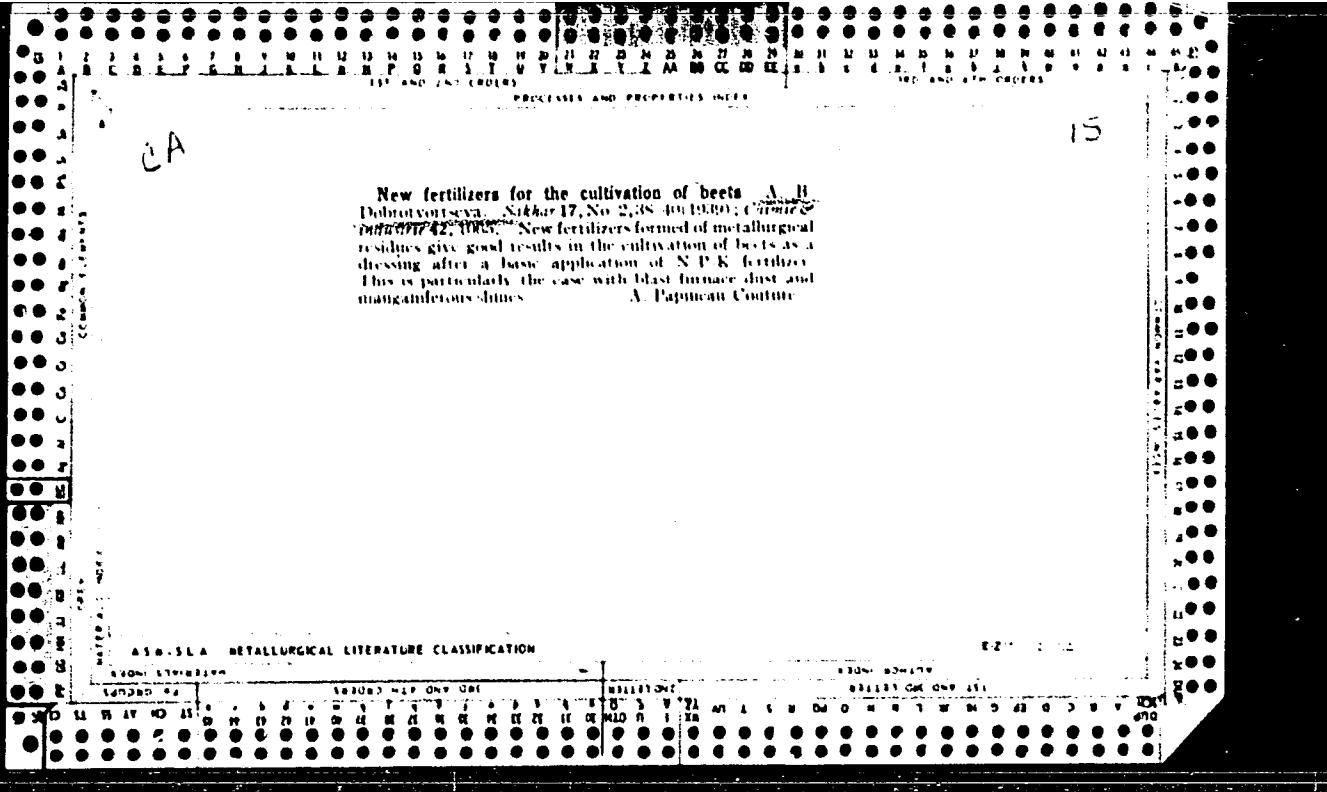
Card 2/3

SOV/177-58-7-22/28

Treatment of Certain Skin Diseases by Intravenous Injection of Novocaine and Vitamin B<sub>1</sub>

entirely. This medicinal complex possesses a sharply pronounced antiphlogistic, antipruritic and sedative effect. It reduces the sensibility of the organism against novocaine, prevents allergic reaction and, in urgent cases, it allows a repeated treatment with this complex without any serious secondary phenomena. 3) The method is simple and applicable in wards as well as in polyclinics. There is 1 table.

Card 3/3



DOBROTVORTSEVA, A. V.

25830

Kloprosu poseva sakharoy svekly obkatannymi semenami. Sakhar. prom-st', 1949,  
No. 7, s. 37-40.

SO: Letopis' No. 34

CP

28

✓ Enveloping of sugar-beet seeds with fertilizers. A. V.  
(1951). The preplanting treatment of seeds by enveloping  
them with different fertilizers increased the sugar yield and  
size of the sugar-beet roots. Several tables are shown  
V. E. Baikov

DOBROTVORTSEVA, A. V.

"Presowing Treatment of the Sugar Beet Seed-Ball by Fertilizers as a Method of Increasing the Yield." Cand Agr Sci, Kiev Agricultural Inst, Kiev, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

DOBROTVORTSEVA, A.V.

Means of thinning sugar beets planted in checkrows. Sakh.prom.  
29 no.3:35-38 '55. (MLRA 8:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy sverkly  
(Sugar beets)

DOBROTVORTSEVA, A. V.

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82455

Author : Dobrovtortseva, A.V.

Inst : ~~V.N.I. SAKHARNOY SLEKLY~~

Title : On the Storage of Material Roots of the Sugar Beet.

Orig Pub : Sakharnaya prom-st', 1957, No 12, 57-58

Abstract : During 1955-1956 40 production trials were started in the beet kolkhozes of different sugar growing zones of USSR on the study of various methods of storing the material roots of the sugar beet. It was determined that in the beet growing regions of the Ukrainian Soviet Socialist Republic and the Russian Soviet Federated Socialist Republic on structural non-inundating soils with low ground water level and also in Central Asia, the ovarial roots have to be packed in trenches with an earthen interlayer between the layers of beet. However, in the absence of opportunities to stack the roots in a regular

Card 1/2

DOBROTVORTSEVA, A.V.

Hill checks and checkrowing methods used in the growing of  
mother beets. Sakh.prom. 33 no.9:65-68 S '59.  
(MIRA 13:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharinoj  
svekly.  
(Sugar beets)

DOBROTVORTSEVA, A.V.

Space arrangement of sugar beet seedlings. Sakh.prom. 33  
no.10: 50-52 O '59. (MIRA 13:3)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut sakharney  
svekly.  
(Sugar beets)

DOBROTVORTSEVA, A.V.

Seeding rate for sugar-beet seeds. Sakh.prom. 34 no.3:  
49-51 Mr '20. 60.  
(MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharney  
sverkly.  
(Sugar beets)

DOBROTVORTSEVA, A.V.

Planting of sugar beet transplants by machines. Sakh. prom. 35  
no. 5:39-42 My '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy sverkly.  
(Sugar beets)

BUZANOV, I.F.; SAMBUROV, V.I.; YEMETS, G.M.; ORLOVSKIY, N.I.; NEGOVSKIY, N.A.; FEDOROV, A.I.; GREKOV, M.A.; KURBATOV, S.T.; MEL'NICHUK, A.N.; TONKAL', Ye.A.; GORNAYA, V.Ya.; ROZHDESTVENSKIY, I.G.; SIDOROV, A.A.; KUDARENKO, F.F.; BROVKINA, Ye.A.; GELLER, I.A.; DOBROTVORTSEVA, A.V.; VARSHAVSKIY, B.Ya.; KUTSURUBA, N.V.; KUZ'MICH, S.I.; PRESNYAKOV, P.V.; USHAKOV, A.F.; SHEVCHENKO, V.N.; KHUCHUA, K.N.; PETRUKHA, Ye.I.; POZHAR, Z.A.; SHAPOVALOV, P.T.; AREF'YEV, T.I.; GRIGOR'YEVA, A.I., red.; BALLOD, A.I., tekhn. red.

[Sugar beets] Sakharnaia svekla. Moskva, Sel'khozizdat,  
(MIRA 16:11)  
1963. 487 p.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sa-  
kharnoy svekly. 2. Nauchnyye sotrudniki Vsesoyuznogo  
nauchno-issledovatel'skogo instituta sakhariny svekly  
(for all except Grigor'yeva, Ballod).  
(Sugar beets)

DOBROTVORTSEV, V.A. (Moskva)

Certain medical properties of the novocaine-thiamine complex. Sov.  
med. 22 no.7:95-98 J1 '58 (MIRA 11:10)

(PROCAINE, eff

procaine-vitamin B1 complex (Rus))

(VITAMIN B1, eff.

vitamin B1-procaine complex (Rus))

RUDIK, Petr Antonovich; DOBROV, A.A., red.; DOTSENKO, A.A., tekhn. red.

[Psychology; abridged course] Psikhologija; kratkii kurs. Moskva,  
Fizkul'tura i sport, 1962. 238 p. (MIRA 15:6)  
(PSYCHOLOGY)

BOGDANOV, Yakov Mikheylovich, dots.; KRAKOVYAK, Grigoriy Mironovich,  
dots.; DOBROV, A.A., red.; REKLISOVA, T.D., tekhn. red.

[Hygiene] Gigiена. Moskva, Izd-vo "Fizkul'tura i sport," 1961.  
167 p. (MIRA 15:2)  
(HYGIENE) (PHYSICAL EDUCATION AND TRAINING)

KUKOLEVSKIY, Georgiy Mikhaylovich; DOBROV, A.A., red.; FEKLISOVA, G.F.,  
tekhn. red.

[Sportsman's hygiene]Gigienicheskii rezhim sportamena. Moskva,  
Fizkul'tura i sport, 1963. 77 p.  
(MIRA 16:2)  
(SPORTS MEDICINE)

TAYCHINOV, S.N., prof.; VANYUKOV, Ya.I.; GALIMOV, G.F.; KURCHEYEV, P.A.; CHMELEV, M.P.; GARIFULLIN, F.Sh.; BURANGULOVA, M.N.; MOSEYEEVA, Z.V.; SHAROVA, A.S.; CHMELEV, M.P.; MAZILKIN, I.A.; GIZZATULLIN, S.G.; DOBROV, A.V.; KUZNETSOV, F.V.; FILATOV, L.P., red.; KOBYAKOV, I.A., tekhn.red.

[Soils of the Mazhita Gafuri Collective Farm and their efficient utilization] Pochvy kolkhoza imeni Mazhita Gafuri i puti ikh ratsional'nogo ispol'zovaniia. Pod red. S.N.Taichinova. Ufa, 1960. 124 p. (MIRA 14:1)

1. Akademiya nauk SSSR. Bashkirskiy filial, Ufa: Institut biologii.  
(Bashkiria--Soils)

GAYSIN, Sh.A.; GARIFULLIN, F. Sh.; DOBROV, A.V.; RADTSEVA, G. Ye.

Agrophysical properties of certain soils in the northern forest-steppe of Bashkiria. Mat.po izuch. pochv Bash. ASSR no.1:23-34 '60.  
(MIRA 14:3)

(Bashkiria--Soil physics)

DOBROV, B. M.

24467      DOBROV, B. M. Reaktsiya na gonokokkovyy antigen s vysushenymi otdeleyacym  
sheyki matki. Trudy Glav. voyen. Gospitalya Vooruzh. Sil SSSR im. Akad.  
Burdenko. VYF. 6. M., 1949, S. 335-37. - Bibliogr: 18 nazv.

SO: Letopis, No. 32, 1949.

DOBROV, B. M. and FEYGEL', I. I.

"Improved Method of Diagnosis of Female Gonorrhea with the Use of a Reagent against Gonococcic Antigens," Akusher. i Ginekol., No. 6, 1949.

Obstet. & Gynecol. Clinic, 2nd Moscow Med. Inst. im I. V. Stal'jin

USSR/Medicine - Vacuum Drying of  
Biologicals

Sep/Oct 53

"Vacuum Drying of the Complement as a Method of its  
Preservation," N. B. M. Dobrov, Cand. Med. Sci., Dermato-  
Venereol. Clinic, 2nd Moscow Med Inst im I. V. Stalin  
West Vener. i Derm, No 5, pp 39-41.

A physical method of preservation of the complement  
by means of the vacuum (lyophilic) method of drying  
is feasible and is suggested for application in the  
field of practical serology. Application of this  
method creates the possibility of preservation of the

270T65

complement in a dry form for a period of 3-4 years.  
During that period of time its stability and charac-  
teristics are retained. Results of 22,180 Wassermann  
reactions substantiate the value of the dry comple-  
ment. Use of Soviet-made dehydration equipment is  
described. This equipment is claimed to be superior  
to any similar device found outside the Soviet Union.

270T65

DOBROV, B.M., kandidat meditsinskikh nauk; KUROPATKIN, I.P.

Dry control serum in Wassermann reaction. Vest. ven. i derm.  
no.3:55 My-Je '54.

(MLRA 7:8)

1. Iz dermatovenerologicheskoy kliniki II Moskovskogo meditsinskogo  
instituta im. I.V.Stalina.  
(SYPHILIS--DIAGNOSIS--WASSERMANN REACTION)  
(SERUM DIAGNOSIS)

NIVINSKAYA, M.M. (Moskva, D-367, Ivan'kovskoye shosse, 9, kv.6); DOBROV, B.M. (Moskva, G-121, Rostovskaya naberezhnaya, 3, kv.70)

Diagnostic role of radiation melanuria in primary melanomas of the skin. Vop. onk. 10 no.9:50-54 '64.

(MIRA 18:4)

1. Iz rentgenologicheskogo otdela (zav. - zasluzhennyy deyatel' nauki prof. I.L.Tager) i klinicheskoy laboratorii (zav. - kand. med.nauk B.M.Dobrov) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N.Blokhin).

DOBROV, G.M.

The Soviet Union was the first to develop the cutter-leader. Nar.z  
ist.tekh. no.1:39-55 '54: (MLRA 9:4)  
(Coal mining machinery)

DOBROV, G.M.

A.I. Bakmutskii, outstanding Soviet inventor; 15th anniversary of  
his death. Visnyk AN USSR 25 no.12:42-44 D '54. (MIRA 8:4)  
(Bakmutskii, Aleksei Ivanovich, 1894-1939)

DOBROV, G.M.

Development in Soviet construction of coal cutter-leaders during  
the second and third five-year plan. Nar. i st.tekh. no.2:14-33  
'55. (Coal mining machinery) (MLRA 9:4)

DOBROV.G.

Story of a remarkable invention. ("The first Soviet coal cutter-loader." Aleksei Ivanovich Bakmutskii. Reviewed by G. Dobrov).  
Mast. ugl. 4 no.4:29 Ap '55. (MLRA 8:6)  
(Bakmutskiy, Aleksey Ivanovich, 1893-1939) (Coal mining machinery)

DOBROV, G.M.

History of the mechanization of coal mining in the Donets Basin.  
Visnyk AN UESR 26 no.11:66-73 N '55. (MLRA 9:2)  
(Donets Basin--Coal mines and mining)

SOV/112-57-9-18176

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 9, p 1 (USSR)

AUTHOR: Anisimov, Yu. A., Dobrov, G. M.

TITLE: Studies of History of Technology in UkrSSR  
(Izuchenie istorii tekhniki v UkrSSR)

PERIODICAL: V sb.: Vopr. istorii yestestvozn. i tekhniki, Nr 1, M., AS USSR,  
1956, pp 319-322

ABSTRACT: A report on the First Republic Coordination Conference on the History  
of Technology, Kiyev, in which 129 representatives from 73 organizations of 12  
UkrSSR oblasts took part. The Conference was organized by the Commission  
on History of Technology, Division of Technical Sciences, AS UkrSSR.

S.M.G.

Card 1/1

DOBROV, G.M.

Soviet construction of cutter loaders during the Great Patriotic  
War. Nar z ist. tekhn. no.3:95-102 '56. (MIRA 10:6)  
(Coal mining machinery)

DOBROV, G.M., kandidat tekhnicheskikh nauk.

History of the initial period in mechanizing national coal  
industries. Ugol' 31 no.3:37-39 Mr '56. (MLRA 9:?)

1. Akademiya nauk USSR.  
(Coal mining machinery)

*Dobrov, G.M.*

~~DOBROV, G.M. (Kiyev)~~

New materials about A.I. Bakhnutskii. Vop.ist.est. i tekhn.  
no.5:193-194 '57. (MIRA 11:2)  
(Bakhnutskii, Aleksei Ivanovich, 1893-1939)

*DOBROV, G.M.*  
DOBROV, G.M.

Glorious page in the history of Russian manufacture of cutter-loaders. Visnyk AN URSR 28 no.9:57-60 S '57. (MIRA 11:1)  
(Coal mining machinery)

DOBROY, Gennadiy Mikhaylovich; NEMCHENKO, V.S., otv.red.; ARZAMASOV, N.A.,  
red. Izd-va; KOMOVENKOVA, Z.A., tekhn.red.

[History of Soviet coal cutter-loaders] Istorija sovetskikh  
ugledobyvaiushchikh kombainov. Ugletekhnizdat, 1958. 279 p.  
(Coal mining machinery) (MIRA 12:2)

DOBROV, G. M.

History of the development of Soviet cutter-loaders for coal  
mining. Trudy Inst. ist. est. i tekhn. 25:161-176 '59.  
(MIRA 13:4)  
(Coal mining machinery)

ANISIMOV, Yu.O.; DOROV, G.M. [Dobrov, N.M.]

Scientific session of the Department of Technological Sciences  
of the Academy of Sciences of the Ukrainian S.S.R. on the theme,  
"Problems of the history of technology." Dop. AN UkrSSR no. 831127-  
1123 '62. (MIR 1812)

KHRENOV, K.K., akademik, otv. red.; SHVETS', I.T., red.;  
SHCHERBAN', O.N., red.; KUCHEROV, P.S., red.; SAMSONOV,  
G.V.[Samsonov, H.V.], red.; ANISIMOV, Yu.O., kand. tekhn.  
red.; DOBROV, G.M.[Dobrov, H.M.], kand. tekhn. nauk, red.;  
MATIYKO, M.M., red.; ORLIK, O.L.[Orlyk, O.L.], red.

[Essays on the history of technology in the Ukraine] Narysy  
z istorii tekhniki na Ukrainsi. Kyiv, Naukova dumka, 1964.  
110 p. (MIRA 17:11)

1. Akademiya nauk URSR, Kiev. Sektor istorii tekhniki i  
yestestvovaniya. 2. Chlen-korrespondent AN Ukr.SSR (for  
Kucherov, Samsonov).

DOBROV, Gennadiy Mikhaylovich; GOLYAN-NIKOL'SKIY, Anton;  
YEFREMENKO, A.N., red.

[Century of great hopes; the fortunes of scientific and  
technological progress in the 20th century] Vek velikikh  
nadezh; sud'by nauchno-tehnicheskogo progressa XX sto-  
letiya. Kiev, Naukova dumka, 1964. 176 p. (MIRA 17:6)

DOBROV, G.M. [Dobrov, H.M.]; SOLOGUB, V.S. [Solohub, V.S.]

In memory of D.A.Grave; a scientific conference. Dop. AN URSR  
no.5:697-699 '64. (MIRA 17:6)

L 15406-66 FSS-2/EWT(1)/FS(s)/FS(v)-3/EEC(k)-2/FCC/EWA(h) TT/ENS/GW  
ACC NR: AP6000625 SOURCE CODE: UR/0209/65/000/012/0026/0028

AUTHOR: Antipov, V.; Dobrov, N.; Nikitin, M.; Saksonov, P.

ORG: None

TITLE: The radiation barrier on the way to the moon

SOURCE: Aviatsiya i kosmonavtika, no. 12, 1965, 26-28

TOPIC TAGS: solar radiation effect, space radiation hazard, radiation biologic effect, cosmonaut

ABSTRACT: The authors discuss the possibly dangerous effects of the ionizing radiation associated with chromospheric solar bursts that may be encountered in radiation belts by manned deep-space probes. The composition of primary cosmic radiation is discussed, and it is pointed out that this radiation can be tolerated by astronauts in doses of from 125-270 mb per 24-hr period, depending on the nature of the solar activity during that period. Also considered is the radiation of the internal and external radiation belts. It is shown that this form of radiation also poses no real threat to the health of the cosmonaut under normally anticipated conditions. Of considerably greater interest from the standpoint of an Earth-Moon flight is the radiation which arises in association with chromospheric bursts

Card 1/2

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ACC NR: AP6000625

on the Sun. This form of radiation contains approximately 90% protons and 10% alpha-particles. The protection-to-dosage ratios for this radiation are discussed, the possible effects of specific dosages on the living organism of a cosmonaut located within such a sun-burst stream are analyzed, and an attempt is made to estimate the probability of a space vehicle's encounter with this form of radiation. The authors conclude that, with a properly selected flight trajectory, adequate protection against solar-burst-originated protons, effective dosimetric controls and reliable sun-burst prediction techniques, the radiation barrier on deep-space probes, and particularly on an Earth-Moon mission, can be successfully and safely penetrated.

SUB CODE: 06,18 / SUBM DATE: none

PC

Card 2/2

ACC NR: AP/002593

(A, N)

SOURCE CODE: UR/0413/66/000/023/0100/0101

INVENTORS: Gromyko, V. Ya.; Dobrov, N. A.; Zazulin, V. A.; Aslanyan, E. V.; Semin, N. A.

ORG: none

TITLE: An assembly for checking the efficiency of an aircraft engine. Class 42, No. 189230 [announced by Central Institute of Aircraft Engine Construction (Tsentral'nyy institut aviationsionnogo motorostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 100-101

TOPIC TAGS: aircraft engine, engine control system, aircraft engine instrument

ABSTRACT: This Author Certificate presents an assembly for checking the efficiency of an aircraft engine. This assembly contains gauges, gauge commutators, a voltage-to-code converter, memory units for the upper and the lower ranges, digital comparators, an electromagnetic static frequency multiplier, a directing device, a control panel, and a data output device. To increase the speed of the assembly and to lower the dynamic losses originating in converting engine revolutions into coded signals, the output coils of the tachometric gauge are connected to the three-phase coils of the static frequency multiplier. The output coils of the frequency multiplier are connected through a key to the input element of the impulse counter.

Card 1/1 SUB CODE: 01, 13/ SUBM DATE: 12Jul65/

UDC: 681.149

ACC NR: AP7003008

SOURCE CODE: UR/0413/66/000/024/0156/0156

INVENTORS: Tolchinskiy, Ye. M.; Lebedev, A. V.; Gorbunova, G. I.; Dobrov, N. A.; Gusel'nikova, M. V.; Zagryadskiy, A. I.; Zazulin, V. A.; Podol'skaya, G. V.

ORG: none

TITLE: An automatic measuring and recording device "ERA". Class 42, No. 165597

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 156

TOPIC TAGS: measuring instrument, transistor, analog digital converter, logic element

ABSTRACT: This Author Certificate presents an automatic measuring and recording device "Era." The device contains a group relay commutator of the meters, grouped measuring amplifiers, an analog-digital converter with a zero-organ and a generator of stage voltages, and a directing unit. To connect a desired group to the analog-digital converter and to measure voltages of alternating signs, a logic commutator is connected to the outputs of the measuring amplifiers. This commutator contains transistor switches, the number of which is equal to twice the number of amplifiers. These switches are connected to the group counter and to the sign trigger. The input of the unity position of this trigger is connected to the directing unit, and the input of the zero position is connected with the output of the zero organ.

SUB CODE: 09/

SUBM DATE: 11Jul63

Card 1/1

UDC: 681.178.9

DOBROV, N.F.; GORLACH, I.A.; KREYS, N.V.; ZHUKOV, D.G.

Investigating the inhomogeneity of electrical steel ingots. Stal'  
12 no.2:117-122 F '59. (MIRA 12:2)

1. Ural'skiy institut chernykh metallov i Chelyabinskij metallurgi-  
cheskiy zavod.  
(Steel ingots) (Steel--Analysis) (Metallography)

DOBROV, N.G.

Setting up a heavy drop hammer at the "Magnetite-Bis" mine.  
Prom. stroi. 39 no.4:16-19 '61. (MIRA 14:6)  
(Nizhniy Tagil--Mining machinery)

DOBROV, N.G.

The time expended in the construction of blast furnaces can be reduced even more. Prom.stroi. 38 no.2:21-26 '60. (MIRA 13:5)

1. Nachal'nik stroitel'stva kompleksa domennoy pechi Nizhne-Tagil'skogo metallurgicheskogo kombinata.  
(Blast furnaces)

DOBROV, N.G.

Reconstruction of a blooming mill in Nizhniy Tagil. Prom. stroi.  
40 no.3:2-7 '62. (MIRA 15:3)

1. Tagilstroy.

(Nizhniy Tagil--Rolling mills)

DOBROV, N.G., inzh.

Precast concrete in the construction of a magnesia products  
plant. Prom. stroi. 41 no.8:26-27 Ag '64. (MIRA 17:11)

1. Gosudarstvennyy trest stroitel'nykh predpriyatiy g. Nizhniy  
Tagil.

DOBROV, N.I.; SIDORENKO, A.I.

Operation of mechanical receiving bins. Sakh.prom. 30 no.4:39-41  
Ap '54. (MLRA 9:8)

1. Luchanskiy sakharnyy zavod.  
(Sugar industry--Equipment and supplies)

DOBROV, N. N., NIKITIN, M. D., VOLYNKIN, Yu. M., SAKSONOV, P. P., and ANTIPOV, V. V.,

"Ensuring of Radiation Safety During Flights of Soviet Cosmonauts Yu. A. Gagarin, G. S. Titov, A. G. Nikolayev, and P. R. Popovich."

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TITLE: Some problems in providing radiation safety in space flight

SOURCE: Konferentsiya po aviatcionnoy i kosmicheskoy meditsine, 1963.  
Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy\*  
konferentsii. Moscow, 1963, 23-26

TOPIC TAGS: radiation safety, space flight, spaceflight factors, cosmic radiation  
effect, vibration, acceleration, radiation protection, dosimetric control, bio-  
logical dosimeter, solar flare, antiradiation drug/RBE

ABSTRACT: Although protons are an important component of primary cosmic radiation,  
experimental data on their biological action under space conditions and their  
RBE compared with x-rays and gamma-rays are lacking. It has been established that  
the RBE of protons with energies in excess of 100 Mev (LD<sub>50</sub> for rodents) is a  
little less than one. However, the data on which this figure is based were obtained  
with various particle accelerators of high-dose power and pulsed radiation,

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conditions not found in space. The RBE of alpha-particles and high-energy nuclei of the heavier elements has been estimated as lying between 2 and 10. Laboratory verification with animals is unfortunately impossible, since sufficiently powerful accelerators do not exist. The combined effect of radiation and other space-flight factors (vibration, acceleration, modified atmosphere, etc.) is another important area where few experimental data are available. It is necessary to know in what ways and to what extent cosmic radiation contributes to the total effect of space flight on the human body, and what is the qualitative and quantitative influence of other space-flight factors on the biological effect of radiation, in order to formulate scientifically-based antiradiation drugs and safety measures. Experiments have shown that the development of radiation damage is modified by acceleration and vibration, the effect depending on when and in what sequence these factors occur. Animals subjected to vibration and acceleration 5 to 7 days after irradiation showed a poorer tolerance to these factors than nonirradiated animals. In addition, the vibration and acceleration aggravated the course of the radiation sickness. Vibration and acceleration prior to irradiation not only failed to aggravate radiation sickness, but even somewhat abated its severity. Without experimental data on RBE and the combined effects of spaceflight factors, permissible levels of radiation cannot be scientifically established. A conditional

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permissible dose of 25 ber (biological equivalent roentgen) has been set, but is subject to revision upward or downward as actual data on the effect of various cosmic radiation components and the effectiveness of antiradiation measures are accumulated. The ideal type of radiation protection would be mechanical shielding (i. e., an actual screen of lead or some other material) but this is technologically impossible at present. The majority of chemical antiradiation agents cannot be used under space-flight conditions. Since radiation effects are not confined to humans, not only the crew members but the whole spaceship biocomplex (plants, animals on board, etc.) must be protected lest the equilibrium of the closed ecology be upset by hereditary or other effects. Basic elements of a radiation safety system for spacecraft will be: 1) dependable dosimetric control of the radiation level in the spaceship cabin by means of ship, individual, and biological dosimeters; 2) scientific forecasting of radiation conditions in space, especially solar chromospheric flares; and 3) effective pharmacological and biological agents for protection against the harmful effects of cosmic radiation.

ASSOCIATION: none

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